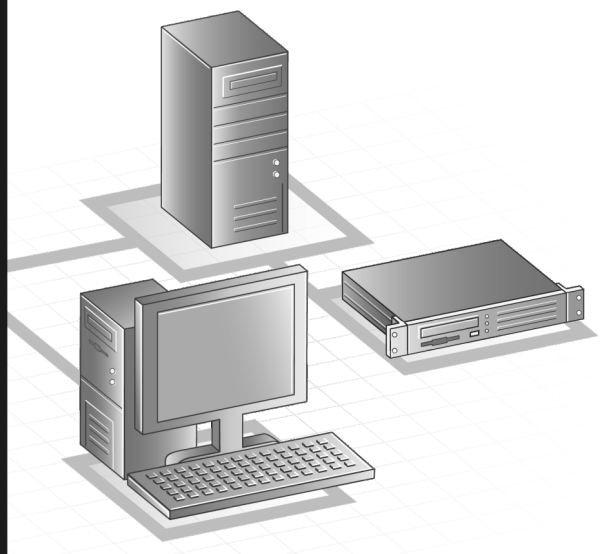
2410SA Enclosure Kit HIG.fm Page 0 Thursday, October 23, 2003 1:20 PM

adaptec

HARDWARE INSTALLATION GUIDE

ADAPTEC SERIAL ATA RAID 2410SA ENCLOSURE



2410SA Enclosure Kit HIG.fm Page 1 Thursday, October 23, 2003 1:20 PM

In this Guide...

Before You Begin	1
Installing the Drive Carriers	2
Labelling the Drive Carriers	3
About the Drive LEDs	3
Installing the Drive Chassis	3
Hot-swapping Disk Drives	6
Technical Specifications	7

This *Hardware Installation Guide* explains how to set up the 4-bay hot-swappable drive chassis included in the Adaptec® 2410SA Enclosure kit. It also describes how to install and hot-swap hard disk drives.

Before You Begin

Ensure you have these items from the Adaptec 2410SA Enclosure kit before beginning the installation:

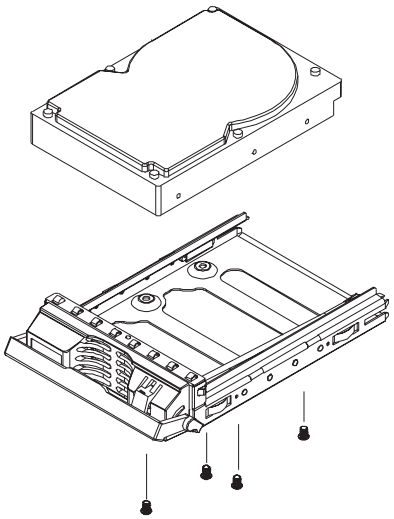
- Adaptec 2410SA Enclosure drive chassis
- Four drive carriers
- Four SATA cables
- SATA LED cable
- Bag of screws and labels

You will also need a screwdriver during installation.

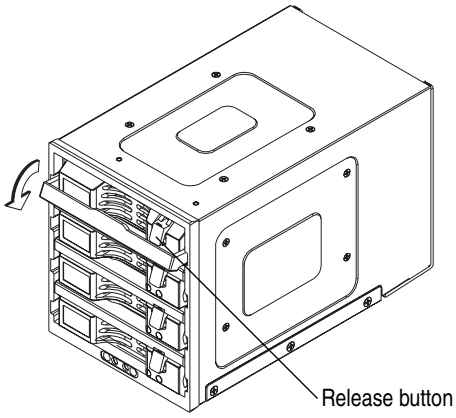
Installing the Drive Carriers

To install a drive carrier:

1 Mount a hard disk drive in a drive carrier and secure it with screws, as shown.



2 Insert the drive carrier into the drive slot and push firmly but gently until you can press the carrier handle down and click the release button into place.



3 Repeat until all four drive carriers are installed.

Labelling the Drive Carriers

The four drives are designated slightly differently by the Adaptec 2410SA controller, the drive chassis, and the Adaptec Storage Manager software. This Table shows the different designations:

Drive Chassis	2410SA Controller	Adaptec Storage Manager
Channel #1	J1/P0	P0 (Port 0)
Channel #2	J2/P1	P1
Channel #3	J3/P2	P2
Channel #4	J4/P3	P3

The Adaptec 2410SA Enclosure kit contains labels that you can use to label the drive carriers as desired.

About the Drive LEDs

Each drive carrier has an Activity LED, which illuminates or flashes to indicate status.

When the LED is illuminated, there is I/O activity on that disk drive.

When the LED is blinking, that disk drive has failed and should be hot-swapped immediately. (The LED blinks at a steady rate when the drive has failed—it illuminates for half a second, and then goes off for half a second.)

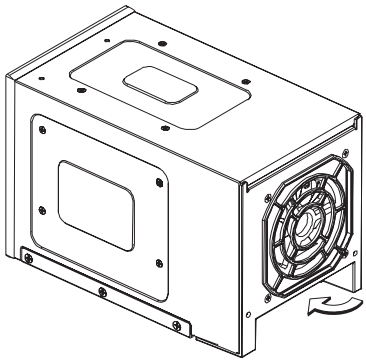
When the LED is dark, there is no activity on that disk drive.

Installing the Drive Chassis

To install the drive chassis:

1 Turn off your computer, disconnect the power cord, and ground yourself by touching the computer chassis. Then remove the computer cabinet, following the manufacturer's instructions.

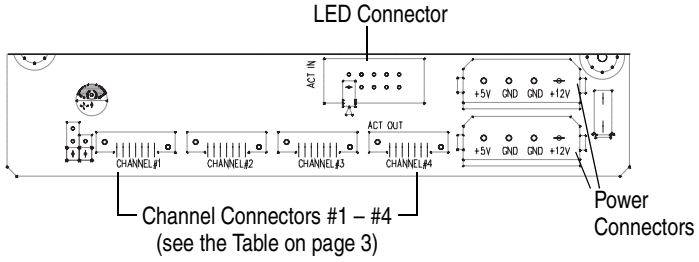
2 Turn the drive chassis so that you can access the connectors on the rear panel.



The connectors are shown in detail in the next Figure.

3 Using the Figure as a guideline, connect the cables. Use gentle but firm pressure to fit the connectors together.

Caution: The connectors are keyed to fit together one way only. Do not try to force a cable onto a connector. If the cable does not slide on easily, try reversing it.



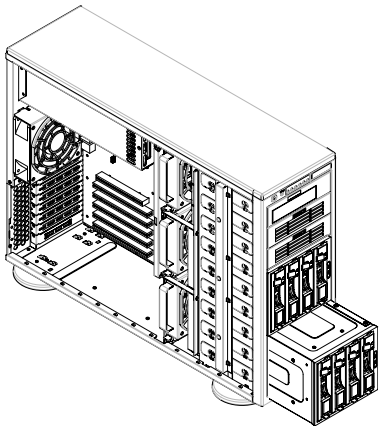
a Connect the LED cable to the LED connector, marked on the backplane as JP26.

b Connect a SATA cable to channel connector #1, rotating the end of the cable until it fits properly onto the connector. Both ends of the SATA cable are identical, but are keyed to fit the connectors one way only.

Continue by connecting SATA cables to channel connectors #2 – #4.

c Connect two power supply cables to power supply connectors.

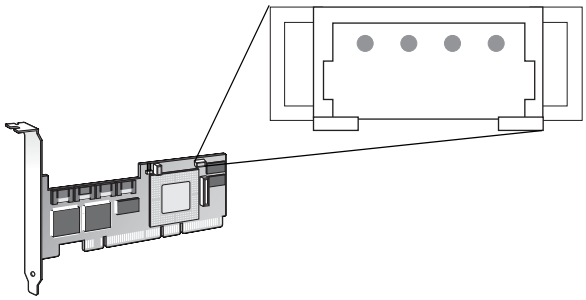
4 Install the drive chassis into the computer cabinet, using the screws provided in the Adaptec 2410SA Enclosure kit. (Your computer cabinet may not look exactly the same as the one shown in the example below.)



5 Install the Adaptec Serial ATA RAID 2410SA controller, if you haven't already. Refer to the printed *Adaptec Serial ATA RAID 2410SA Quick Installation Guide*, included in the kit, for detailed instructions.

6 Connect the SATA cables to the controller, following the instructions provided in the *Adaptec Serial ATA RAID 2410SA Quick Installation Guide*.

7 Connect the LED cable to the LED cable connector on the controller. The connector and cable are keyed to fit together one way only, as shown:



8 Close the computer cabinet and reattach the power cord.

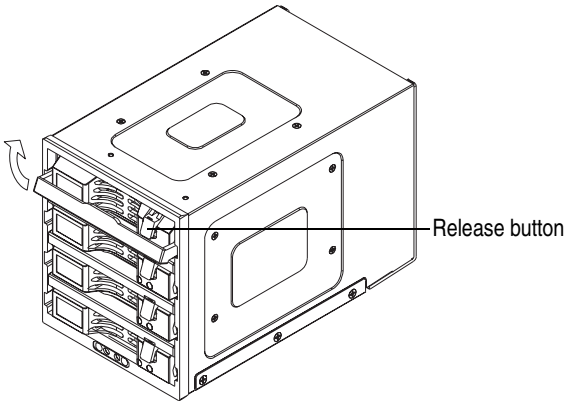
9 Power on your computer and install the device driver for the Adaptec Serial ATA RAID 2410SA controller, if you haven't already. Refer to the *Adaptec Serial ATA RAID 2410SA Quick Installation Guide*, included in the kit, for detailed instructions.

Refer to the *Adaptec Serial ATA RAID 2410SA Installation and User's Guide* for detailed information about using your Adaptec 2410SA Enclosure Kit.

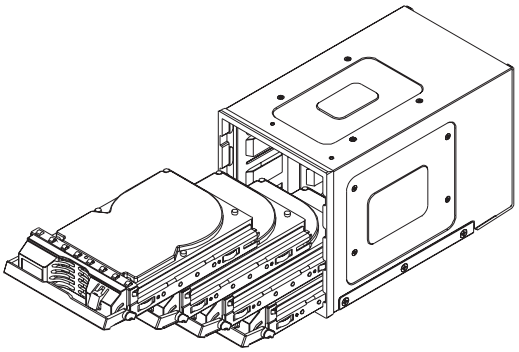
Hot-swapping Disk Drives

To hot-swap a disk drive:

1 On the drive chassis, push the drive carrier's release button and pull the handle up to release the drive carrier, as shown.



2 Pull out the drive carrier. You can remove multiple disk drives at the same time, if required.



3 Mount a new drive in a drive carrier and secure it with screws, as shown in Step 1 on page 2.

4 Insert the drive carrier into the drive slot and push firmly but gently until you can press the carrier handle down and click the release button into place, as shown in Step 2 on page 2.

Technical Specifications

Occupancy	Three 5.25" drive bays
Capacity	Four (4) 1" Host Receptacle Connectors, SATA hot-swap hard drives
Cooling Subsystem	One 90 mm exhaust fan
System Monitoring	■ Fan Fail Detection LED and Alarm ■ Overheat LED indication
Dimensions (W x H x D)	147 mm x 129 mm x 230 mm (5.8 in x 5.0 in x 9.1 in)
Weight	Gross: 6.8 lb (3.4 kg)

Copyright

©2003 Adaptec, Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written consent of Adaptec, Inc., 691 South Milpitas Blvd., Milpitas, CA 95035.

Trademarks

Adaptec and the Adaptec logo are trademarks of Adaptec, Inc., which may be registered in some jurisdictions.

All other trademarks are the property of their respective owners.

Changes

The material in this document is for information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, Adaptec, Inc. assumes no liability resulting from errors or omissions in this document, or from the use of the information contained herein.

Adaptec reserves the right to make changes in the product design without reservation and without notification to its users.

Disclaimer

IF THIS PRODUCT DIRECTS YOU TO COPY MATERIALS, YOU MUST HAVE PERMISSION FROM THE COPYRIGHT OWNER OF THE MATERIALS TO AVOID VIOLATING THE LAW WHICH COULD RESULT IN DAMAGES OR OTHER REMEDIES.

Adaptec Customer Support

If you have questions about installing or using your Adaptec product, check this document first—you will find answers to most of your questions here. If you need further assistance, use the support options listed below.

Technical Support Identification (TSID) Number

- Before contacting Technical Support, you need your unique 12-digit TSID number. The TSID number identifies your product and support status.
- The TSID number is included on two white, bar-coded labels, like the example below.

IMPORTANT INFORMATION!
AFFIX SERIAL NUMBER STICKER ON THE RETURN PORTION OF THE REGISTRATION CARD.
TSID:100000000000
(1P) PRODUCT P/N: 1000000
(S) PRODUCT S/N: BB00000000000
THIS TSID NUMBER WILL BE REQUIRED WHEN CONTACTING TECHNICAL SUPPORT.
TSID:100000000000
(1P) PRODUCT P/N: 1000000
(S) PRODUCT S/N: BB00000000000

- If you register by mail, affix one copy of the TSID label to the registration card, which may be contained on the CD. Also affix a copy of the TSID label to the CD jacket so that you don't lose it.

Support Options

- Search the Adaptec Support Knowledgebase (ASK) at ask.adaptec.com for articles, troubleshooting tips, and frequently asked questions for your product.
- For support via e-mail, submit your question to Adaptec's Technical Support Specialists at ask.adaptec.com.

North America

- Visit our Web site at www.adaptec.com.
- For information about Adaptec's support options, call +1 408-957-2550, 24 hours per day, 7 days per week. To speak with a Technical Support Specialist,
  - For **Hardware** products call +1 408-934-7274, Monday to Friday, 3:00 A.M. to 5:00 P.M., Pacific Time.
  - For **RAID and Fibre Channel** products call +1 321-207-2000, Monday to Friday, 3:00 A.M. to 5:00 P.M., Pacific Time.

  To expedite your service, have your computer in front of you.
- To order Adaptec products, including accessories and cables, call +1 408-957-7274. Or, you can order cables online at www.adaptec.com/buy-cables.

Europe

- Visit our Web site at www.adaptec-europe.com.
- **German:** To speak with a Technical Support Specialist, call +49 89 43 66 55 22, Monday to Friday, 9:00 to 17:00, CET. For support via e-mail, submit your question to Adaptec's Technical Support Specialists at ask-de.adaptec.com.
- **French:** To speak with a Technical Support Specialist, call +49 89 43 66 55 33, Monday to Friday, 9:00 to 17:00, CET. For support via e-mail, submit your question to Adaptec's Technical Support Specialists at ask-fr.adaptec.com.
- **English:** To speak with a Technical Support Specialist, call +49 89 43 66 55 44, Monday to Friday, 9:00 to 17:00, GMT. For support via e-mail, submit your question to Adaptec's Technical Support Specialists at ask.adaptec.com.
- You can order Adaptec cables online at www.adaptec.com/buy-cables.

Japan

- Visit our Web site at www.adaptec.co.jp.
- To speak with a Technical Support Specialist, call +81 3 5308 6120, Monday–Friday, 9:00 A.M. to 12:00 P.M and 1:00 P.M. to 6:00 P.M.

Limited 3-Year Hardware Warranty

1. Adaptec, Inc. ("Adaptec") warrants to the purchaser of this product that it will be free from defects in material and workmanship for a period of three (3) years from the date of purchase. If the product should become defective within the warranty period, Adaptec, at its option, will repair or replace the product, or refund the purchaser's purchase price for the product, provided it is delivered at the purchaser's expense to an authorized Adaptec service facility or to Adaptec.
2. Repair or replacement parts or products will be furnished on an exchange basis and will either be new or reconditioned. All replaced parts or products shall become the property of Adaptec. This warranty shall not apply if the product has been damaged by accident, misuse, abuse or as a result of unauthorized service or parts.
3. Warranty service is available to the purchaser by delivering the product during the warranty period to an authorized Adaptec service facility or to Adaptec and providing proof of purchase price and date. The purchaser shall bear all shipping, packing and insurance costs and all other costs, excluding labor and parts, necessary to effectuate repair, replacement or refund under this warranty.
4. For more information on how to obtain warranty service, write or telephone Adaptec at 691 South Milpitas Boulevard, Milpitas, CA 95035, (800) 959-7274.
5. THIS LIMITED WARRANTY DOES NOT EXTEND TO ANY PRODUCT WHICH HAS BEEN DAMAGED AS A RESULT OF ACCIDENT, MISUSE, ABUSE, OR AS A RESULT OF UNAUTHORIZED SERVICE OR PARTS.
6. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES WHICH NOW OR HEREAFTER MIGHT OTHERWISE ARISE RESPECT TO THIS PRODUCT. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT SHALL (A) HAVE NO GREATER DURATION THAN 3 YEARS FROM THE DATE OF PURCHASE, (B) TERMINATE AUTOMATICALLY AT THE EXPIRATION OF SUCH PERIOD AND (C) TO THE EXTENT PERMITTED BY LAW BE EXCLUDED. IN THE EVENT THIS PRODUCT BECOMES DEFECTIVE DURING THE WARRANTY PERIOD, THE PURCHASER'S EXCLUSIVE REMEDY SHALL BE REPAIR, REPLACEMENT OR REFUND AS PROVIDED ABOVE. INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOSS OF DATA, ARISING FROM BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ARE NOT THE RESPONSIBILITY OF ADAPTEC AND, TO THE EXTENT PERMITTED BY LAW, ARE HEREBY EXCLUDED BOTH FOR PROPERTY DAMAGE, AND TO THE EXTENT NOT UNCONSCIONABLE, FOR PERSONAL INJURY DAMAGE.
7. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, AND SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY TO YOU.
8. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Regulatory Compliance Statements

Federal Communications Commission Radio Frequency Interference Statement

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. However, if this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.
- Use a shielded and properly grounded I/O cable and power cable to ensure compliance of this unit to the specified limits of the rules.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Adaptec, Inc.	Adaptec Serial ATA RAID 2410SA Enclosure
FC Tested to Comply With FCC Standards	
FOR HOME OR OFFICE USE	

European Union Compliance Statement

This Information Technology Equipment has been tested and found to comply with EMC Directive 89/336/EEC, as amended by 92/31/EEC and 93/68/EEC, in accordance with:

- EN55022 (1998) Emissions
- EN55024 (1998) Immunity:
  - EN61000-4-2 (1998) Electrostatic discharge: ±4 kV contact, ±8 kV air
  - EN61000-4-3 (1998) Radiated immunity
  - EN61000-4-4 (1995) Electrical fast transients/burst: ±1 kV AC, ±0.5 kV I/O
  - EN61000-4-5 (1995) Surges ±1 kV differential mode, ±2 kV common mode
  - EN61000-4-6 (1996) Conducted immunity: 3 V
  - EN61000-4-11 (1994) Supply dips and variation: 30% and 100%

In addition, all equipment requiring U.L. listing has been found to comply with EMC Directive 73/23/EEC as amended by 93/68/EEC in accordance with EN60950 with amendments A1, A2, A3, A4, A11.

Canadian Compliance Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

2410SA Enclosure Kit HIG.fm Page 13 Thursday, October 23, 2003 1:20 PM

Adaptec, Inc.
691 South Milpitas Boulevard
Milpitas, CA 95035 USA

©2003 Adaptec, Inc.
All rights reserved. Adaptec and the Adaptec logo are trademarks of Adaptec, Inc. which may be registered in some jurisdictions.

Part Number: 513760-03, Rev. A LB 10/03
Printed in Singapore